2.0 PROJECT ALTERNATIVES

2.1 No-Build Alternatives Discussion

2.1.1 No-Build Alternative

Under the No-Build Alternative, the proposed improvement would not be constructed and existing Cumberland Parkway/KY 80 through Somerset would not be upgraded. Only routine maintenance and repairs of the existing roadways would be carried out.

The No-Build Alternative would perpetuate a facility that is becoming increasingly obsolete and fails to address any of the major components identified in the purpose and need for the project, including traffic volumes and capacity, local access and connectivity and system linkage and continuity.

In terms of traffic volumes and capacity, traffic analysis has shown that projected traffic volumes on some sections of KY 80 and its intersecting roadways in Somerset are expected to approach or exceed roadway capacities, which would lead to gridlock in the local roadway system. **(See Exhibit 5.)**

The No-Build Alternative also would not address the need to provide improved connections to other major roadways in the area. All through-traffic would still be required to enter the city in order to make such connections, thus contributing to increased traffic congestion and poor levels of service in the local roadway network. Other impacts associated with the No-Build Alternative include such travel-related problems as decreased speed, diminished local accessibility (increased travel time), less freedom to maneuver and increases in traffic interruptions and restrictions as well as adverse impacts on driving comfort, convenience and economy of travel.

Finally, the No-Build Alternative would not address the needs of system linkage and continuity. The existing roadway could not become a link in the I-66 interstate highway system across southern Kentucky, should such a highway ever be constructed, because it is not built to interstate standards. The No-Build Alternative also does not meet the I-66 Border to Border Goals set forth by the KYTC and the FHWA.

2.1.2 Mass Transit

Mass Transportation alternatives such as busing or car pooling relieve congestion by improving the efficiency of the mode of travel. However, the area's population (under 200,000) could not support mass transit and, therefore, would not address traffic and capacity needs. A mass transit alternative also would not address other needs including local access and connectivity, and system linkage and continuity.

2.1.3 Transportation System Management

Transportation System Management (TSM) alternatives, such as the addition of turning/climbing lanes or installation of computerized signal systems, are used to promote smooth and efficient

traffic flow. However, such alternatives would not satisfy the traffic volumes and capacity issues to be addressed by this project. Increased traffic volumes have lowered the level of service of KY 80 and its intersecting roadways to such a degree that TSM alternatives would not reduce the problems associated with traffic flow. Like the mass transit and No-Build alternatives, the TSM alternative does not address local access and connectivity and system linkage and continuity issues at all.

2.2 Alternatives Considered But Eliminated

2.2.1 KY 80 Upgrade

One of the build alternates considered in this study was the upgrading of the existing Cumberland Parkway/KY 80 alignment through Somerset. **(See Exhibit 6.)** This option would involve upgrading the existing four-lane partially access-controlled facility to a fully access-controlled, interstate-type facility. It also would involve eliminating intersections and entrances and adding interchanges and frontage roads for local access. This alternate was dismissed from further study for the following reasons:

1. Installing a new interstate-type facility on the existing alignment would not meet the needs associated with traffic volumes and roadway capacity. Traffic projections indicate that the upgrade of KY 80 would cause congestion on portions of the main line and on the local roadway system, particularly within Somerset, to such a degree that they would operate at a lower level of service than the No-Build option. **(See Exhibits 4 and 7.)**

   While it would be possible to somewhat improve the level of service for the KY 80 through-movements by increasing the number of traffic lanes (e.g., from four to six lanes), such an approach would increase the level of impacts on adjacent properties while not addressing the traffic problems on the local road and street network.

2. A major problem associated with the KY 80 Upgrade Alternate is the change in access to the local road and street system within the City of Somerset, as well as to the adjacent homes and businesses along existing KY 80. The change from intersections and entrances to interchanges and frontage roads would lead not only to congestion in the local road and street network, as described in item 1 above, but also would cause considerable socio-economic disruption within Somerset during and after construction.

   The loss of direct highway access to existing businesses – or other access changes with harmful effects (e.g., increased travel distance to reach a business) – could severely affect the ability of such businesses to maintain viable operations. An extended period of construction disruptions and/or the long-term effects of worsened accessibility could lead to the closing of affected businesses.

3. In addition, the need to provide improved connections to other major roadways in the area would not be addressed. All through-traffic would still be required to enter the city in order to make such connections, to the detriment of the area's traffic patterns and traffic flow.

2.3 Build Alternative

The development of this project's alternate alignments resulted from the close coordination and cooperation between the KYTC and various state and federal agencies, established early in project development. In addition, the project's extensive public involvement program, which included a series of public information meetings, periodic newsletters, a public information repository, and a **Citizens Advisory Council**, also served to establish and refine alternate alignments and to further refine the scope of the project study.

Local and regulatory agencies, along with the Citizens Advisory Council and its Work Groups, were provided technical engineering information on the project as well as the results of environmental studies conducted for this project. Agency and public comment received throughout the project study helped to further identify those engineering and environmental issues to be evaluated in this Environmental Assessment.

Under the Build Alternative, a northern bypass of Somerset would be constructed as a new four-lane, interstate-type facility, extending from the Cumberland Parkway at Fishing Creek, just west of Somerset, to KY 80 east of Somerset, bypassing the city on the north. A total of three build alternates, (1) the North Alternate, (2) the South Alternate, and (3) the Crossover Alternate are being considered under the Build Alternative. **(See Exhibits 8 and 14.)**

2.3.1 North Alternate

The North Alternate would begin just east of Fishing Creek and then turn to the north and east. The alignment would cross Ringgold Road at a 90 degree angle and then pass north of Wilson Road to avoid residences. The alignment would continue east where it would cross KY 1674 and come to a nearly right angle crossing of and interchange with *Relocated* U.S. 27. (The construction of Relocated U.S. 27 is slated to begin early in 2003.) The alignment would again head north and east crossing *Existing* U.S. 27 at its intersection with Racetrack Road.

The alternate would then pass just north of Campground Road and continue to head eastward, avoiding residential areas as it crosses Stilesville Road. A curve to the right prepares for the approach to, and interchange with, KY 39. The alternate then follows the toe of a hill north of Coleman Road, curving southeast to cross KY 1317 and intersect with KY 80.

2.3.2 South Alternate

The South Alternate would begin just east of Fishing Creek and then turn to the north and east. After passing just south of North Hart Road, the alternate continues east, crossing Ringgold Road and then KY 1674 just south of Wilson Road. Between KY 1674 and where the South Alternate crosses existing U.S. 27, there is a break in the terrain suitable for the development of an interchange with Relocated U.S. 27. The alignment continues to track northeast crossing KY 1247 just south of East Racetrack Road and heads eastward, crossing KY 39 with an interchange just south of Nelson Valley Road. The interchange will be located on the west bank of Pitman Creek. From this point the South Alternate will curve slightly to the south where it will intersect with KY 80 at Pumphouse Road.

2.3.3 Crossover Alternate

The Crossover Alternate would take advantage of portions of both the North and South Alternates. The alignment generally follows the North Alternate west of existing U.S. 27 and then turns southeast to utilize the South Alternate from the interchange at KY 39 to KY 80.

2.4 Cost and Impact Comparisons

Table 3 compares the length, required right of way and costs of each build alternate. **Table 4** compares the impacts associated with each of the Build Alternates and the No-Build Alternative.

2.5 Preferred Alternative

Based on social, economic, environmental and engineering design studies, input from the general public and the recommendations of the Citizens Advisory Council, the KYTC has determined that the **North Alternate is its Preferred Alternative**. **(See Exhibit 9.)**

The KYTC has found that compared to the other Build Alternates, the North Alternate:

1. provides the best solution to increasing traffic volumes and congestion in Somerset;
2. provides the best overall access and connectivity to other major roadways;
3. would provide the best alignment as a link in the I-66 corridor, if constructed;
4. best fulfills the I-66 Border to Border Goals;
5. is the least costly alternate, per mile, to build;
6. takes the fewest homes and causes the least disruption to neighborhoods;
7. provides the most opportunity for business and economic development; and
8. provides the most space for the planned and controlled, sustainable growth of Somerset and Pulaski County.

The KYTC's determination of the North Alternate as its Preferred Alternative is supported by the findings of the Citizens Advisory Council in its report to the Cabinet, dated October 17, 2002. **(See Appendix A.)** In this document, a large majority of the Advisory Council recommended that the KYTC construct the North Alternate and that the Cabinet present the North Alternate as its Preferred Alternative at the Public Hearing. The Council further requested that the Cabinet expedite the design and construction of this project.

In addition, public opinion surveys conducted at the final two Public Information Meetings held for this project showed that the North Alternate was overwhelmingly preferred by the general public in both surveys.

To further gauge public reaction to and opinion of the proposed project, a Public Hearing will be offered upon approval of this report by the FHWA. **Final selection of an alternative for further implementation will not be made until after consideration of all the impacts and public comments.**